EMPIRE TRANSIT MIX, INC. (DAR SITE ID #59)

Address:	430 Maspeth Avenue, Brooklyn, New York 11211
Tax Lot Parcel(s):	Brooklyn Block 2928, Lot 30
Latitude:	40.719047
Longitude:	-73.924984
Regulatory Programs/ Numbers/Codes:	PBS No. 2-016071 and 2-609891, USEPA ID No. NYN008015661, USEPA FRS No. 110011024257, NYSDEC Spill No. 9206929, NPDES No. NYU200027 and NYU700070
Analytical Data Status:	☐ Electronic Data Available ☒ Hardcopies only ☐ No Data Available

1 SUMMARY OF CONSTITUENTS OF POTENTIAL CONCERN (COPCs) TRANSPORT PATHWAYS TO THE CREEK

The current understanding of the transport mechanisms of COPCs from the upland portions of the Empire Transit Mix, Inc. site (site) to Newtown Creek is summarized in this section and Table 1 and supported in the following sections.

Overland Transport

The site is adjacent to the confluence of Newtown Creek and English Kills. Bulk materials, including sand and gravel, are stored in piles at the site (see Figure 1). Based on the site topography, stormwater in the eastern and southern portions of the property is expected to flow overland towards Newtown Creek (see Figure 1). This is a potentially complete current and historical pathway.

Bank Erosion

The site is adjacent to Newtown Creek. A bulkdhead has existed at the site since the early 1920s (War Department 1930). No specific evidence of bank erosion was identified in the available site records. There is insufficient evidence to make a current or historical pathway determination.

Groundwater

Groundwater flow is to the southeast toward the confluence of English Kills and Newtown Creek (Mackie and Shorter 1996). In 1992, thirteen underground storage tanks (USTs) located in the northeast portion of the site were decommissioned. Evidence of petroleum releases was observed and a soil and groundwater investigation was conducted. During the investigation, light nonaqueous phase liquid (LNAPL) was observed in two of the four on-site monitoring wells. Upland investigation, soil removal , and LNAPL recovery activities occurred at the site. In 1997, NYSDEC issued a no further action determination for the investigation of releasea from the USTs (Austin 1997). Groundwater is a complete historical pathway and potentially complete current pathway.

Overwater Activities

In 1999, the site received materials by barge including sand, gravel, stone, rock, limestone, soil, and dredged material (Find the Best 2012). A barge can be seen adjacent to the site in the 2010 aerial photograph (see Figure 1). Current use of the barge or association to the site is unknown. This is a potentially complete current and historical pathway.

Stormwater/Wastewater Systems

Stormwater from the site is conveyed to Newtown Creek and discharged without treatment at Outfall NCB-306 (NYCDEP 2002). The site is listed as minor, unpermitted facility in the USEPA's Integrated Compliance Information System . Facilities that are identified in this database, but do not have a NPDES discharge permit, include facilities that are inspected or are recipients of enforcement actions. (USEPA 2011). Violations and orders issued by New York City Department of Environmental Protection (NYCDEP) from 1999 to 2005 indicate that the site discharged stormwater and wastewater to nearby catch basins that discharge directly to Newtown Creek. In 2003, a NYCDEP investigation revealed that a sand trap intended to collect cement particulate from on-site vehicle washing was illegally discharged to English Kills via the municipal stormwater system. A build up of cement discovered inside the storm sewer indicated that the discharge had occoured repeatedly (NYCDEP 2003a). Direct discharge of stormwater and wastewater is a complete historical pathway and a potentially complete current pathway.

The site is located in the Newtown Creek Water Pollution Control Plant (WPCP) sewershed. Although sanitary discharges from the site flow into a separate local municipal system, it is likely that the separate local system flows into a larger combined system prior to reaching the treatment plant. When the combined flows exceed the system's capacity, untreated combined sewer overflows (CSOs) are discharged to Newtown Creek (NYCDEP 2007). To the extent that wastewater discharges are coincident with CSO events, this pathway is a potentially complete current and historical pathway.

Air Releases

Information related to air discharges was not located for this site. There is insufficient evidence to make a current or historical pathway determination.

2 PROJECT STATUS

A summary of investigations and remedial activities at the site is provided in the following table.

Activity		Date(s)/Comments
Phase 1 Environmental Site Assessment	☐	
Site Characterization	☐	
Remedial Investigation	☒	1993 – Soil and Groundwater Investigation
Remedy Selection	☐	
Remedial Design/Remedial Action Implementation	☒	1994 - 1997 – LNAPL Monitoring and Removal
Use Restrictions (Environmental Easements or Institutional Controls)	☐	
Construction Completion	☐	
Site Closeout/No Further Action Determination	☒	07/03/97 – No further action issued

Note:
LNAPL – light nonaqueous phase liquid

3 SITE OWNERSHIP HISTORY

Respondent Member: ☐ Yes ☒ No

Owner	Years	Occupant	Types of Operations
Unknown	ca. 1907 – unknown	Louis Bossert and Son (ca. 1907)	Lumber yard
		United Fuel Corporation (ca. 1933)	Coal storage, frame coal pocket
Maspeth Realty Company	Unknown – 1976	Quinn Trucking Company (ca. 1965 – 1991)	Trucking company
Yellow Freight System, Inc.	1976 – 1978		
Transcon Lines	1978 – 1988		
TC Services	1988 – 1991		
Leonard L. Gumport (trustee of Transcon Lines)	1991 – 1992	Transcon Lines	
Maspeth Avenue Plant, Inc.	1992 – 2001	Empire Transit Mix, Inc.	Ready mix concrete
D.G.R. Properties, LLC	2001 – present		

Notes:
ca. – circa
Additional discussion and sources provided in Section 6.

4 PROPERTY DESCRIPTION

The property occupies approximately 1.8 acres adjacent to Newtown Creek. The entire site is paved. There is a one story concrete block building and a truck scale on the northern portion of the site adjacent to Maspeth Avenue. The eastern and central portions of the site are approximately 10 feet above mean sea level. The site slopes down to Newtown Creek on the western property boundary and English Kills on the southern property boundary as shown on Figure 1. A bulkhead has existed at the site since the early 1920s (COE 1930).

The property is adjoined by Maspeth Avenue to the north and a trucking company, ABF Freight Systems, to the west. The area is zoned M3-1 (manufacturing). M3 districts are designated for areas with heavy industries that generate noise, traffic, or pollutants (NYCDCP 2011). A 2010 aerial photograph of the site is presented as Figure 1 and a 2003 site plan is included as Attachment 1.

5 CURRENT SITE USE

Operations at the facility include concrete mixing and distribution. A sand and gravel hopper and a concrete loading ramp are located in the central portion of the site. Concrete trucks and other equipment are parked along the eastern property boundary adjacent to Newtown Creek. Material piles (sand and gravel) are located on the western portion of the site (NYCDEP 2002; see Figure 1).

6 SITE USE HISTORY

By the early 1900s, the site was a portion of a larger property, which included the western adjoining property and was in use as a lumber yard operated by Louis Bossert and Sons (Sanborn 1907). By 1933, United Fuel Corporation was operating a coal yard on the site (Sanborn 1933). Quinn Trucking was operating at the site by 1965 and the present-day, one-story building had been constructed (Sanborn 1965, 1990). Transcon Lines, a trucking facility, operated at the site from the late 1970s to the early 1990s (Tiedeman 1995). Empire Transit Mix, Inc. occupied the site from the early 1990s to the present.

7 CURRENT AND HISTORICAL AREAS OF CONCERN AND COPCs

The current understanding of the historical and current potential upland and overwater areas of concern at the site is summarized in Table 1. The following sections provide brief discussion of the potential sources and COPCs at the site requiring additional discussion.

Potential areas of concern at the site include petroleum underground storage tanks and those areas in which vehicle and maintenance, lumber storage, coal storage, and concrete mixing occured. COPCs associated with these sources include: total petroleum hydrocarbons (TPHs), metals, volatile organic compounds (VOCs), polycyclic aromatic hydrocarbons (PAHs), and other semivolatile organic compounds (SVOCs).

7.1 Uplands

When Transcon Lines occupied the facility, 13 550-gallon USTs containing gasoline, diesel fuel, and waste oil were located on the site. These tanks were closed in September 1992 (PBS No. 2-016071; NYSDEC 2012; EDR 2010). Attachment 2 shows the locations of the USTs.

Approximately 25 tons of contaminated soil was removed during the UST decommissioning (Tiedeman 1995). Two above ground storage tanks are currently located on-site (PBS No. 2-609891). Tank No. 001 is a 250-gallon waste oil tank and Tank No. 001A is a 4,000-gallon diesel tank. Both tanks were installed in August 1999 (NYSDEC 2012; EDR 2010). Tanks under PBS Nos. 2-016071 and 2-609891 are summarized in the following table:

Tank ID	Date Installed	Tank Status	Tank Location	Capacity (gallons)	Product
PBS No. 2-016071					
001	08/01/92	Closed – In Place 09/01/92	UST	550	Diesel
002	08/01/92	Closed – In Place 09/01/92	UST	550	Diesel
003	08/01/92	Closed – In Place 09/01/92	UST	550	Diesel
004	08/01/92	Closed – In Place 09/01/92	UST	550	Diesel
005	08/01/92	Closed – In Place 09/01/92	UST	550	Diesel
006	08/01/92	Closed – In Place 09/01/92	UST	550	Diesel
007	08/01/92	Closed – In Place 09/01/92	UST	550	Diesel
008	08/01/92	Closed – In Place 09/01/92	UST	550	Diesel
009	08/01/92	Closed – In Place 09/01/92	UST	550	Diesel
010	08/01/92	Closed – In Place 09/01/92	UST	550	Diesel
011	08/01/92	Closed – In Place 09/01/92	UST	550	Gasoline
012	08/01/92	Closed – In Place 09/01/92	UST	550	Gasoline
013	08/01/92	Closed – In Place 09/01/92	UST	550	Other
PBS No. 2-609891					
001	08/01/99	In service	AST (in contact with impervious barrier)	250	Waste oil/ Used oil
001-A	08/01/99	In service	AST (in contact with soil)	4,000	Diesel

Notes:
AST – aboveground storage tank
UST – underground storage tank

Records indicate that the site is an inactive Resource Conservation and Recovery Act generator (USEPA 2011). Historically, it has been listed as a large quantity generator (EDR 2010).

7.2 Overwater Activities

In 1999, the site received materials by barge, including sand, gravel, stone, rock, limestone, soil, and dredged material (Find the Best 2012). A barge can be seen adjacent to the site in the 2010 aerial photograph. Sand, gravel, stone, rock, limestone, soil, and dredged material were stockpiled on site (see Figure 1).

7.3 Spills

Documented spills at the site are summarized as follows:

- On September 9, 1992, a tank failure resulted in a diesel release (NYSDEC Spill No. 9206929). The Environmental Data Resources, Inc. listing indicates that the volume of the release was unknown, soil was impacted, tanks were decommissioned and contaminated soil removed, and the file was closed by NYSDEC on July 3, 1997 (EDR 2010; NYSDEC 2012). Subsequent soil and groundwater investigations are discussed in Section 9.

8 PHYSICAL SITE SETTING

8.1 Geology

Geologic conditions at the site have been characterized to depths 8 feet below ground surface (bgs). Seven soil borings from a 1997 investigation report described observed site lithology from the ground surface downward as follows (Mackie and Shorter 1997):

- Concrete at ground surface
- Red fill, sand, and silt material from 0 to 4 feet bgs
- Brown sand with some gravel and silt from 4 to 8 feet bgs

8.2 Hydrogeology

In December 1992, four monitoring wells were installed on the northeastern portion of the site, near the former USTs. Groundwater was encountered between 6 and 8 feet bgs and was thought to be tidally influenced (Tiedeman 1995; Mackie and Shorter 1997). Groundwater flow at the site is to the southeast toward the confluence of English Kills and Newtown Creek (Mackie and Shorter 1997).

9 NATURE AND EXTENT (CURRENT UNDERSTANDING OF ENVIRONMENTAL CONDITIONS)

During a UST decommissioning in 1992, NAPL was observed in soil near the tanks. Soil was excavated from the area of the USTs to approximately 6.5 feet bgs, characterized and disposed off-site as hazardous waste (Tiedeman 1995). The tanks were removed and monitoring wells were installed to determine whether groundwater had been impacted by the release. LNAPL was observed in the monitoring wells. LNAPL monitoring and recovery activities continued until 1997. NYSDEC issued a no further action determination to the site on July 3, 1997 (Austin 1997).

9.1 Soil

Soil Investigations	☒	Yes	☐	No		
Bank Samples	☐	Yes	☒	No	☐	Not Applicable
Soil-Vapor Investigations	☐	Yes	☒	No		

9.1.1 Soil Investigations

In December 1992, four soil borings were drilled on the site near the former USTs. Soil samples were collected and analyzed for benzene, toluene, ethylbenzene and total xylenes (BTEX), TPH, and lead (Mackie and Shorter 1996). The analytical data was not included in the reports available for review; however, the text of the reports indicate that BTEX and lead were detected in the soil samples (Mackie and Shorter 1996).

On February 22, 1997, a total of seven soil borings (GP-1 through GP-7) were advanced south of MW-3 with a truck-mounted Geoprobe. Boring locations are shown in Attachment 2. Neither LNAPL nor sheen was observed (Tiedeman 1997).

9.2 Groundwater

Groundwater Investigations	☒	Yes	☐	No		
NAPL Presence (Historical and Current)	☒	Yes	☐	No		
Dissolved COPC Plumes	☒	Yes	☐	No		
Visual Seep Sample Data	☐	Yes	☒	No	☐	Not Applicable

9.2.1 Groundwater Investigations

In December 1992, the four soil borings were converted to shallow overburden groundwater monitoring wells (MW-1 through MW-4) to characterize groundwater quality and establish flow direction (Tiedeman 1995; Mackie and Shorter 1996). The locations of the monitoring wells are shown in Attachment 2.

9.2.2 NAPL (Historical and Current) Presence

LNAPL was observed in MW-3 at the time of installation in December 1992 and 1994 in MW-2 during recovery. A flexible axial peristaltic pump was used to extract the LNAPL from the monitoring wells. LNAPL was not observed in the two up-gradient wells, MW-1 and MW-4, during the entire period of monitoring and recovery. The thickness of product in MW-2 decreased to non-measurable levels by December 1993. However, LNAPL was observed in both MW-2 and MW-3 in March 1994 (Tiedeman 1995). Between April and August 1994, product thickness in MW-2 decreased to non-measurable levels. Over that same time interval, LNAPL in MW-3 continued to fluctuate at levels between non-measurable levels and 3 inches. Recovery activities were determined to be complete by McLaren/Hart Environmental Engineering Corporation (McLaren/Hart) on August 5, 1994, after LNAPL thickness of less than 0.25 inches in monitoring well MW-3 was maintained for three months (Tiedeman 1995).

On May 22, 1996, May 29, 1996, and June 7, 1996, depth to groundwater and LNAPL thickness measurements were recorded in the wells located on site. LNAPL was measured at 0.06 feet thick, 0.11 feet thick, and 0.12 feet thick in MW-3. Following this, MW-3 was pumped again to attempt to remove LNAPL (Mackie and Shorter 1996). A summary of LNAPL measurements from 1992 through 1996 can be found in Attachment 3. The plan view and cross section of the LNAPL impacted area is shown in Attachments 4 and 5, respectively.

In February 1997, additional field activities were conducted at the site. Complete rounds of groundwater measurements were collected in the four onsite monitoring wells. The results from these efforts are presented in Attachment 6. Following this investigation McLaren/Hart

concluded that the LNAPL observed in monitoring well MW-3 was isolated to the immediate vicinity of the monitoring well (Mackie and Shorter 1997).

9.2.3 Dissolved Contaminant Plumes

Groundwater sampling was conducted at the four monitoring wells in December 1992, January 1993, and February 1993. The groundwater samples were analyzed for BTEX, TPH, and lead (Mackie and Shorter 1996). Samples were analyzed for total lead during the December groundwater sampling events and dissolved lead during the January and February sampling events. The analytical data were not included in reports available for review; however, the results were summarized in the report as follows:

- BTEX and TPH compounds were detected in the groundwater samples
- Between the December and February sampling events BTEX concentrations in samples collected from monitoring well MW-3 increased while BTEX concentrations in the other three wells decreased
- Samples collected from wells MW-1 and MW-4 contained the lowest BTEX concentrations
- Total lead was detected in groundwater samples collected from the four monitoring wells. Dissolved lead concentrations were below method detection limits indicating lead was absorbed to suspended solids (Mackie and Shorter 1996)

9.2.4 Groundwater Summary

Groundwater contamination was found in 1992 following the removal of thirteen USTs. A flexible axial peristaltic pump was used to extract LNAPL from the monitoring wells. In July 1997, NYSDEC concluded that the remedial activities were complete and closed the file (Mackie and Shorter 1997).

9.3 Surface Water

Surface Water Investigation	☐ Yes	☒ No
SPDES Permit (Current or Past)	☐ Yes	☒ No
Industrial Wastewater Discharge Permit (Current or Past)	☐ Yes	☒ No
Stormwater Data	☐ Yes	☒ No

Catch Basin Solids Data	☐ Yes ☒ No
Wastewater Data	☒ Yes ☐ No

9.3.1 Stormwater and Wastewater Systems

Stormwater is conveyed to Newtown Creek and discharged without treatment at Outfall NCB-306 (NYCDEP 2002). The site is listed as minor, unpermitted facility in the USEPA's Integrated Compliance Information System . Facilities that are identified in this database, but do not have a NPDES discharge permit, include facilities that are inspected or are recipients of enforcement actions (USEPA 2011).

Beginning in 1999, numerous compliance issues were noted. On April 22, 1999, NYCDEP issued Order Number 12510 requiring that Empire Transit Mix not discharge any substance onto the sidewalk, street, or into catch basins or sewer manholes. It also required that all concrete and concrete materials be removed from the street and sidewalk immediately (NYCDEP 1999).

On June 23, 2002, a case investigation report was prepared that included documentation of the Order Number E21453 for Empire Transit Mix to clean the storm sewer line from the sand interceptor to Outfall NCB-306 (NYCDEP 2002).

A case investigation report was prepared on May 14, 2003 to investigate a citizen report of a white powdery substance discharging to English Kills during dry weather. The investigation revealed that the company had a sand trap to collect cement particulate from vehicles washed down on the property. After the separation process, the remaining waste was supposed to be discharged to the sanitary sewer. However a dye test determined that the waste was being discharged illegally to the storm sewer and English Kills. A build-up of cement discovered inside the storm sewer indicated that the discharge had occurred repeatedly (NYCDEP 2003a).

On May 16, 2003, Order Number 20440 was issued to the site. It required submittal of a stormwater containment plan for on-site equipment and materials (NYCDEP 2003b). Order Number 21445 was also issued on May 16, 2003. This order required that a process layout diagram be submitted (NYCDEP 2003a). Order Number 21447 required that the site remove

the illegal connection to the storm sewer and reconnect to the sanitary sewer with a notarized affidavit from a licensed plumber (NYCDEP 2003c).

On June 3, 2003, Order Number 21453 was issued requiring the establishment to clean the storm sewer line that discharges at NCB-306 (NYCDEP 2003d). On July 21, 2003, an inspection report was prepared to document that Empire Transit Mix had disconnected from the storm sewer and connected to the sanitary sewer (NYCDEP 2003e).

On August 6, 2003, Order Number 22807 was issued rejecting the stormwater containment plan submitted on July 21, 2003 and requiring an updated plan be submitted (NYCDEP 2003f). Order Number 22809 was submitted on August 6, 2003 requiring submittal of total suspended solids (TSS) sampling results of the wastewater discharged to the public sewer (NYCDEP 2003g). On October 31, 2003, a Notice of Violation (NOV) E 113-471-600 was issued for failure to comply with order 22809 (TSS sample results) (NYCECB 2003).

On March 7 and 8, 2005, a case investigation report was prepared documenting observation of cement entering a catch basin tributary to the Outfall NCB-306 from a cement truck belonging to Empire Transit Mix being washed on the street. This is a violation of Order Number 12510 and Notice of Violation E133-824-112 was issued (NYCDEP 2005). The current status of the NOVs and Orders is unknown.

The site is located in the Newtown Creek WPCP sewershed. Wastewater is conveyed to the WPCP for treatment prior to discharge. Although sanitary discharges from the site flow into a separate local municipal system, it is likely that the separate local system flows into a larger combined system prior to reaching the treatment plant. When the combined flows exceed the system's capacity, untreated CSOs are discharged to Newtown Creek (NYCDEP 2007).

9.3.2 Sampling Data

Order Number 22809 and NOV E 113-471-600 required the site to monitor TSS concentrations in wastewater discharge to the public sewer. Selected results are provided in the following table:

Report Date	Constituent	Result	Unit	Source
11/28/03	TSS	158 114 152 132	mg/L	Testwell Laboratories 2003
12/01/03	TSS	102 134 204 150	mg/L	Testwell Laboratories 2003
12/02/03	TSS	186 192 174 116	mg/L	Testwell Laboratories 2003

Notes:
mg/L – milligrams per liter
TSS – total suspended solids

9.3.3 Surface Water Summary

The site discharges storwmater to Newtown Creek and wastewater to a municipal system that overflows to Newtown Creek (NYCDEP 2007). The site has received numerous notices of violation for illicit wastewater discharges directly to Newtown Creek, and to the municipal separate storm sewer and combined sewer system (NYCDEP 2003a; 2003c; 2005).

9.4 Sediment

Creek Sediment Data ☐ Yes ☒ No ☐ Not Applicable

Sediment investigation information was not found in reviewed documents.

9.5 Air

Air Permit ☐ Yes ☒ No

Air Data ☐ Yes ☒ No

Information related to air emissions was not found in reviewed documents.

10 REMEDIATION HISTORY (INTERIM REMEDIAL MEASURES AND OTHER CLEANUPS)

In September 1992, 13 USTs containing diesel, gasoline, and waste oil were removed from the site. Sampling indicated that subsurface soils near the tanks had been impacted. Approximately 25 tons of soil was removed as hazardous material and 550 tons as non-hazardous waste. The excavation was backfilled with clean soil. (Tiedeman 1995).

LNAPL was observed in on-site monitoring wells. Approximately 620 gallons of LNAPL and water were removed during the remediation activities from May 1993 to August 1994 (Tiedeman 1995). A flexible axial peristaltic pump was used to extract LNAPL from the monitoring wells. When LNAPL thickness was less than 0.5 inch, recovery was achieved using a hand bailer (Tiedeman 1995; Mackie and Shorter 1996). A final round of observations was made in May 1995 (Tiedeman 1995).

Aggressive pumping of MW-3 occurred in August 1995 at the recommendation of NYSDEC in an attempt to remove remaining LNAPL from MW-3 (Mackie and Shorter 1996). Attachment 7 shows LNAPL thickness measurements taken during the pumping remediation activities. On July 3, 1997, NYSDEC issued a no further action letter to the site for the petroleum remediation activities conducted on behalf of the Maspeth Avenue Plant, Inc. (Austin 1997).

11 BIBLIOGRAPHY/INFORMATION SOURCES

Austin, R.W., 1997. Letter to: Bruce Mackie, McLaren/Hart Environmental Engineering Corp. Regarding: Closure Request for Remedial Work at 430 Maspeth Ave., Brooklyn. July 3, 1997.

War Department (War Department U.S. Engineer Office), 1930b. Letter to: Dempsey, W., Chairman Committee of River and Harbors. Regarding: Report of the Board of Engineers for Rivers and Harbors Review of Report Heretofore Submitted on Newtown Creek, New York. Submitted in House Document No. 42, 71st Congress, second session. May 23, 1930.

EDR (Environmental Data Resources, Inc.), 2010. EDR DataMap™ Environmental Atlas™ for "Newton Creek Queens, New York." November 4, 2010.

Find the Best, 2012. Empire Transit Mix, Newtown Creek Wharf. Port Facility in New York. Accesssed January 21, 2012.
Available from: http://seaport.findthebest.com/l/521/Empire-Transit-Mix-Newtown-Creek-Wharf

Mackie and Shorter (Mackie, B. and Shorter, M.), 1996. Letter to: Mr. Randall W. Austin, NYSDEC. Regarding: Remedial Action Evaluation Report for the Former Transcon Lines Terminal. August 26, 1996.

Mackie and Shorter, 1997. Letter to: Mr. Randall W. Austin, NYSDEC. Regarding: Former Transcon Lines Terminal. March 11, 1997.

NYCDCP (New York City Department of City Planning), 2011. New York City Department of City Planning Digital Parcel Finder. Accessed November 22, 2011.
Available from: http://www.nyc.gov/html/dcp/html/subcats/zoning.shtml

NYCDEP (New York City Department of Environmental Protection), 1999. Bureau of Wastewater Pollution Control. Order No. 12510. April 22, 1999.

NYCDEP, 2002. Shoreline Survey Program. Case Investigation Report. June 23, 2002.

NYCDEP, 2003a. Bureau of Wastewater Treatment. Order No. 21445. May 16, 2003.

NYCDEP, 2003b. Bureau of Wastewater Treatment. Order No. 20440. May 16, 2003.

NYCDEP, 2003c. Bureau of Wastewater Treatment. Order No. 21447. May 16, 2003.

NYCDEP, 2003d. Bureau of Wastewater Treatment. Order No. 21453. June 23, 2003.

NYCDEP, 2003e. Shoreline Survey Program. Case Investigation Report. July 21, 2003.

NYCDEP, 2003f. Bureau of Wastewater Treatment. Order No. 22807. August 6, 2003.

NYCDEP, 2003g. Bureau of Wastewater Treatment. Order No. 22809. August 6, 2003.

NYCDEP, 2005. Shoreline Survey Program. Case Investigation Report. March 7 and 8, 2005.

NYCDEP, 2007. *Landside Modeling Report, Sewershed Characteristics and Model Calibration.* City-Wide Long Term CSO Control Planning Project. Newtown Creek

WPCP Service Area. Draft. New York City Department of Environmental Protection, Bureau of Engineering Design and Construction. July 2007.

NYCECB (New York City Environmental Control Board), 2003. Notice of Violation and Hearing. No. E 113 471 600. October 31, 2003.

NYSDEC (New York State Department of Environmental Conservation), 2012. Environmental Site Database. Accessed February 23, 2012. Available from: http://www.dec.ny.gov/chemical/8437.html

Sanborn (Sanborn Map Company), 1907. *Insurance Maps of Brooklyn, New York*. Volume 9: Sheet 82. 1907.

Sanborn, 1933. *Insurance Maps of the Borough of Brooklyn, New York*. Volume 9: Sheet 66. 1933.

Sanborn, 1965. *Insurance Maps of the Borough of Brooklyn, New York*. Volume 9: Sheet 66. Original 1933, revised 1965.

Sanborn, 1990. *Insurance Maps of the Borough of Brooklyn, New York*. Volume 9: Sheet 66. Original 1933, revised 1990.

Testwell Laboratories, 2003. Empire Transit Mix Lab Sample Results. December 10, 2003.

Tiedeman, C.F., 1995. Letter to: Mr. Randall W. Austin, NYSDEC. Regarding: Final Closure Report. Former Transcon Lines Terminal. June 1, 1995.

USEPA (U.S. Environmental Protection Agency), 2011. USEPA Envirofacts Database. Accessed November 22, 2011. Available from: http://www.epa.gov/enviro/index.html

12 ATTACHMENTS

Figures

Figure 1 Site Vicinity Map: Empire Transit Mix, Inc.

Tables

Table 1 Potential Areas of Concern and Transport Pathways Assessment

Supplemental Attachments

Attachment 1	ET01-1: Facility Site Plan (NYCDEP 2002)
Attachment 2	Figure 2: Shallow Groundwater Contours (2/22/97) & Soil Boring Locations (Mackie and Shorter 1997)
Attachment 3	Table 1: Summary of Monitoring Activities (Mackie and Shorter 1996)
Attachment 4	Figure 6: Cross-Section/Impacted Area Location Map (Mackie and Shorter 1996)
Attachment 5	Figure 7: Geologic Cross-Section A-A' (Mackie and Shorter 1996)
Attachment 6	Table 1: Summary of Monitoring Activities (Mackie and Shorter 1997)
Attachment 7	Figure 4: Product Thickness versus Time for MW-3 (Mackie and Shorter 1996)

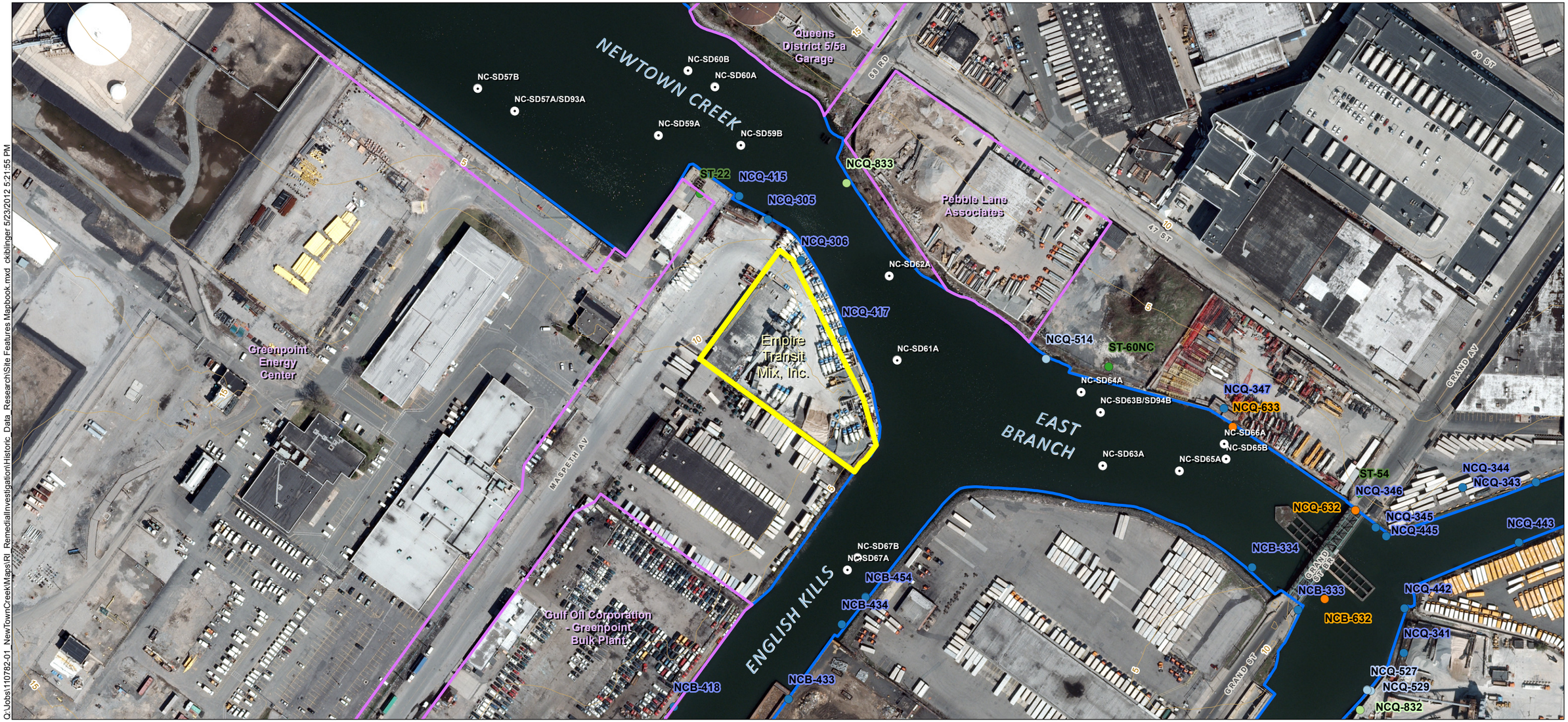
Table 1

Potential Areas of Concern and Transport Pathways Assessment – Empire Transit Mix, Inc.

Potential Areas of Concern	Media Impacted					COPCs														Potential Complete Pathway						
						TPH			VOCs																		
Description of Areas of Concern	Surface Soil	Subsurface Soil	Groundwater	Catch Basin Solids	Creek Sediment	Gasoline-Range	Diesel – Range	Heavier – Range	Petroleum Related (e.g., BTEX)	VOCs	Chlorinated VOCs	SVOCs	PAHs	Phthalates	Phenolics	Metals	PCBs	Herbicides and Pesticides	Dioxins/Furans	Overland Transport	Groundwater	Direct Discharge – Overwater	Direct Discharge – Storm/Wastewater	Discharge to Sewer/CSO	Bank Erosion	Air Releases
Freight and Trucking Operations (1965 – 1992)	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	√	?	?	?
Lumber yard (circa 1907)	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	√	?	?	?
Coal yard (1933 – 1951)	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	√	?	?	?
Former diesel, gasoline, waste oil and USTs and ancillary equipment	√	√	√	?	?	√	√	√	√	?	?	?	?	?	?	?	?	?	?	?	√	?	?	?	?	?
1992 Tank Failure Spill (diesel)	√	√	√	?	?	?	√	?	?	?	?	?	?	?	?	?	?	?	?	?	√	?	?	?	?	?
Aggregate piles (1992 –present)	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	√	?	?	?
Illicit discharges to creek and municipal sewer	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	?	√	√	?	?

Notes:
√ – COPCs are/were present in areas of concern having a current or historical pathway that is determined to be complete or potentially complete.
? – There is not enough information to determine if COPC is/was present in area of concern or if pathway is complete.
-- – Current or historical pathway has been investigated and shown to be not present or incomplete.

BTEX – benzene, toluene, ethylbenzene, and xylenes
COPC – constituent of potential concern
CSO – combined sewer overflow
PAH – polycyclic aromatic hydrocarbon
PCB – polychlorinated biphenyl
SVOC – semi-volatile organic compound
TPH – total petroleum hydrocarbon
UST – underground storage tank
VOC – volatile organic compound



Q:\Jobs\110782-01_NewTownCreek\Maps\RI_RemedialInvestigation\Historic_Data_Research\Site Features.Mapbook.mxd ckiblinger 5/23/2012 5:21:55 PM

- USEPA Sample Locations (Surface and Subsurface)
- Shoreline (NYC Dept. of Information Technology, 2006)
- USGS Nat'l Elev. Dataset 5-foot Contours
- Selected Site Property Boundary
- Neighboring Site Property Boundary

Outfall Class

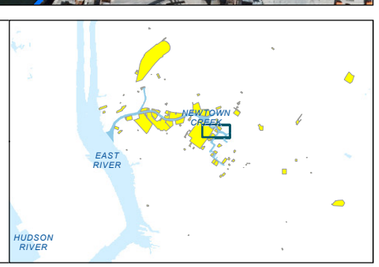
- Direct Discharge
- General
- Highway Drain
- Major Stormwater Outfall
- SPDES
- Storm Drain

NOTES:

1. Outfall Labeling: BB: Bowery Bay; NC(B/Q): Newtown Creek, Brooklyn/Queens; ST: Stormwater.
2. Outfall locations are preliminary, compiled, estimated data based on New York City Department of Environmental Protection (NYCDEP) maps and tabulated data and other resources. Many outfall locations were taken from the New York City Shoreline Survey Program: Newtown Creek Water Pollution Control Plant Drainage Area, NYCDEP, March 31, 2003. Other locations were taken from an excerpt from a similar report from 2008 (the complete report was not included in files available for review). Finally, some outfall locations were inherited from previous Anchor QEA and Newtown Creek Project work. Latitudinal and longitudinal data provided in the 2003 and 2008 NYCDEP reports were rounded to the nearest second. This resulted in potential outfall location discrepancies of up to approximately 200 feet. All outfall locations are currently under field verification.
3. Aerial Photos: New York State Division of Homeland Security and Emergency Services, 2010.
4. Site Boundaries are based on New York City parcels data.
5. Coarse topographic contours are derived from U.S. Geological Survey 10-meter data.

Feet

0 100 200 300 400



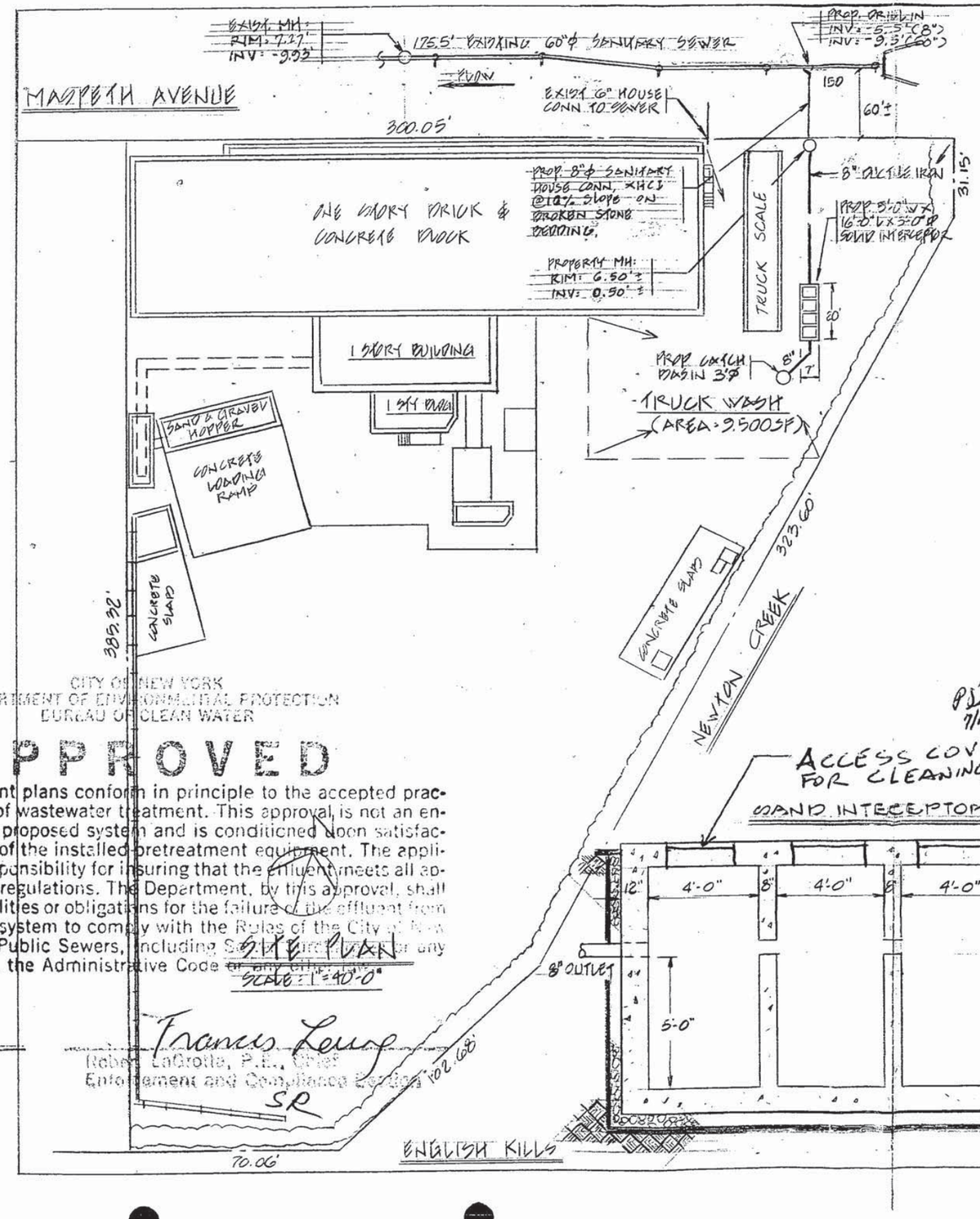
ANCHOR QEA

DRAFT

Figure 1
Site Vicinity Map
Draft Upland Site Summary: Empire Transit Mix, Inc.
Newtown Creek RI/FS

SUPPLEMENTAL ATTACHMENTS

Attachment 1



BLOCK: 2928 **LOT #:** 30

ZONE: M3-1 **MAP #:** 13A

DEPARTMENT OF BUILDINGS #'S:

ADDRESS: 430 MASPETH AVENUE, BROOKLYN, N.Y. 11211

APPLICANT: PHILIP TOSCANO, 415 GRAHAM AVENUE, BROOKLYN, N.Y., 11211

OWNER: EMPIRE TRANSIT MIX, 430 MASPETH AVENUE, BROOKLYN, N.Y. 11211

TRUCK WASH AREA: 9,500 S.F.

HYDRAULIC CALCULATION

A. SANITARY FLOW:

THE EXISTING SANITARY HOUSE CONNECTION FOR THE SITE WILL REMAIN. THE PROPOSE SANITARY FLOW OF THE TRUCK FLOW AREA WILL BE CONNECTED INTO CITY SANITARY SEWER WITH A NEW 8" SANITARY HOUSE CONNECTION.

Q = C X R X AREA
= 0.85 X 5.95 X 9,500/43,560 = 1.10 C.F.S.

B. SOLID INTERCEPTOR CALCULATION:

FLOW RATE PER MINUTE = 1.10 C.F.S X 60 SEC./MIN = 66 C.F.M.
SOLID INTERCEPTOR CAPACITY = 5 TIMES THE FLOW RATE
= 66 C.F.M. X 5 = 330 CU.FT.

PROVIDE 5'-0"W X 16'-0"L X 5'-0"D SOLID INTERCEPTOR = 400 CU.FT. > 330 CU.FT.

C. STORM FLOW:

EXISITNG SITE STORM RUNOFF WILL REMAIN. NO NEW STORM HOUSE CONNECTION IS REQUESTED.

D. GENERAL NOTES:

1. **PROVIDE CATCH BASIN FOR RUNOFF FROM TRUCK WASH AREA (APPROXIMATELY 9,500 S.F.). THE CATCH BASIN WILL BE CONNECTED BY A 8" DUCTILE IRON PIPE TO A FOUR CHAMBERS SOLID INTERCEPTOR. THE 8" OUTLET WILL BE CONNECTED INTO EXISTING CITY SANITARY SEWER FRONTING THE PROPERTY.**
2. **ELEVATIONS SHOWN ARE IN BROOKLYN HIGHWAY DATUM WHICH IS 2.56 FEET ABOVE MEAN SEA LEVEL U.S.C & G.S., SANDY HOOK. BROOKLYN SEWER DATUM IS 1.72 FEET ABOVE MEAN SEA LEVEL U.S.C. & G.S., SANDY HOOK**
3. **PROPOSED CATCH BASIN TO BE LOCATED AT THE LOW POINT OF THE TRUCK WASH AREA. THE SAND INTERCEPTOR WILL BE CLEANED MECHANICALLY AS NEEDED BY REMOVING THE ROOF OF EACH CHAMBER. THE INTERCEPTOR WILL BE CAST IN PLACE CONCRETE.**

PSJ 7/1/03

REGISTERED ARCHITECT
PHILIP TOSCANO
020848-1
STATE OF NEW YORK

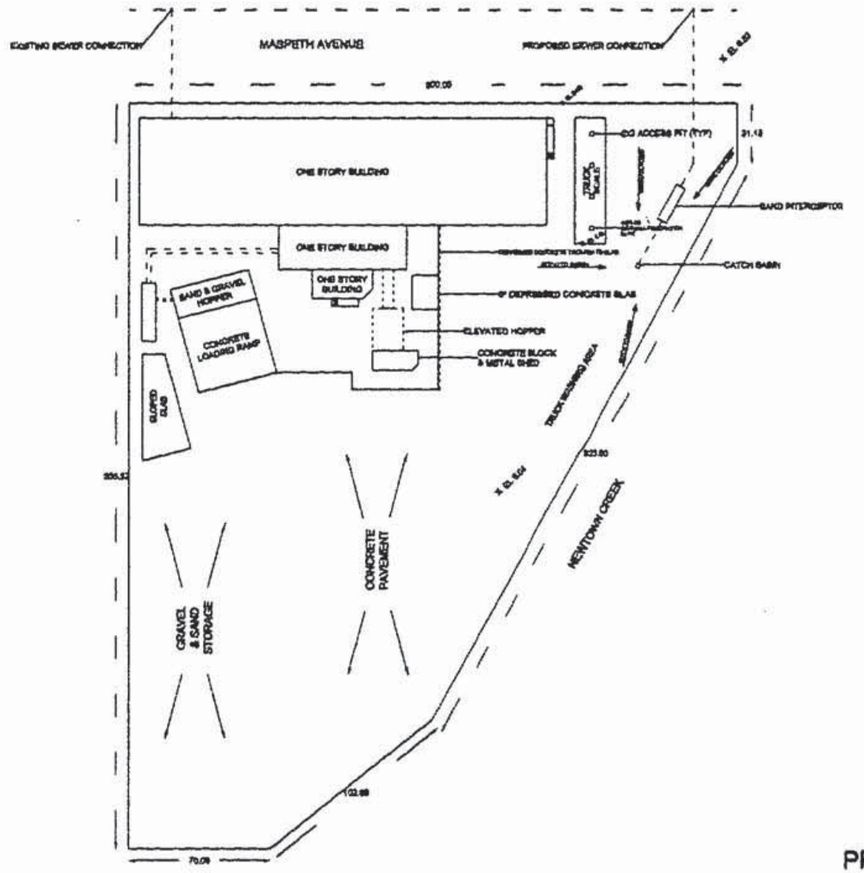
CONTROLLED INSPECTION:
FINAL

NO CHANGE TO USE, EGRESS, NOR OCCUPANCY.

PHILIP TOSCANO ARCHITECTS **415 GRAHAM AVENUE, BROOKLYN, NY 11211**		
BLOCK: 2928 LOT: 30 **ADDRESS: 430 MASPETH AVENUE, BROOKLYN, NY**		
SITE PLAN AND HYDRAULIC CALCULATION		
DATE: (REVISED) **MAY 26, 2003**	**SCALE:** **AS SHOWN**	**DWG#:** **200389**

NEWT-0136454

Attachment 1



EMPIRE TRANSIT MIX PROPOSAL FOR CONNECTION TO NYC SEWER

Empire Transit Mix, a ready mix concrete company operating in Brooklyn, New York proposes to collect and dispose of truck washing runoff in the New York City sewer system. A wastewater sample was collected and analyzed, the results are as follows:

Name of Test	Results	Acceptable
Oil and Grease	2.9 mg/l	< 50 mg/l
Total Suspended Solids	754 mg/l	< 350 mg/l

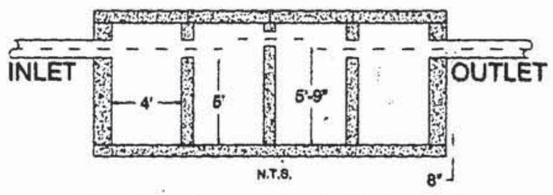
The solids that are present in the wastewater are stone, sand and cement, which have densities of 165 pcf, 165 pcf, and 195 pcf respectively, therefore since all are measurably higher than water, 62.4 pcf settlement will occur almost instantaneously.

Empire Transit Mix proposes to install a catch basin at the location shown on the site plan. This basin will be connected by a 12" Ductile Iron pipe to a four chamber sand interceptor as shown on the plan. The outlet from the interceptor will then be connected the existing sewer by a 12" Ductile Iron Pipe at the location shown on the plan. The existing sewer is a 60" sanitary sewer. The sand interceptor will be cleaned mechanically as needed by removing the roof of each chamber. The interceptor will be cast in place concrete.

NOTES:
All elevations are in Brooklyn Hwy Datum which is 2.66 feet above U.S.C and G.S. Datum at Sandy Hook, N.J.

All runoff shall be contained on the property. There will not be runoff into Newtown Creek, Maspeth Avenue or the adjacent property.

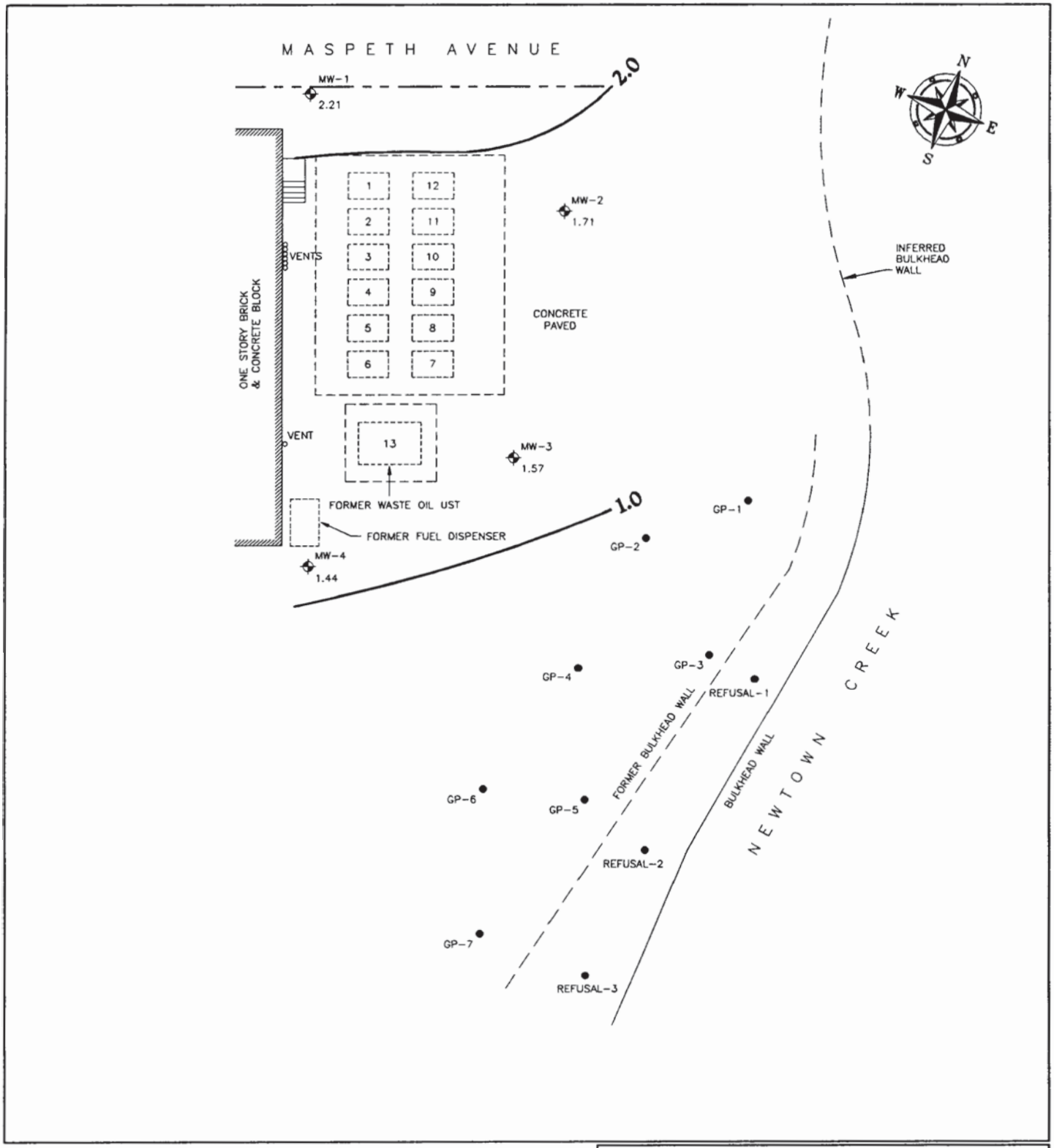
PROPOSED SAND INTERCEPTOR



REMOVABLE ROOF SLABS TO BE OPENED TO MECHANICALLY CLEAN INTERCEPTOR AS NEEDED.

EMPIRE TRANSIT, INC.		
430 MASPETH AVENUE BROOKLYN, NY 11237		
FACILITY SITE PLAN		
DATE 6-17-03	CHECKED BY ES	ET01-1
DRAWN BY MG	REV DATE 6-17-03	

Attachment 2



LEGEND

- PROPERTY LINE
- MONITORING WELL LOCATION
- APPROXIMATE FORMER EXCAVATION LIMITS
- 1 FORMER UST
- SOIL BORING LOCATION
- 1.0 GROUNDWATER CONTOUR LINE
- 1.44 GROUNDWATER CONTOUR ELEVATION

SCALE

20 10 0 20 FEET

DWG: 85000006 03/10/97

FIGURE 2

SHALLOW GROUNDWATER CONTOURS (2/22/97) & SOIL BORING LOCATIONS

FORMER TRANSCON LINES TERMINAL
BROOKLYN, NEW YORK

McLaren Hart® ENVIRONMENTAL ENGINEERING CORPORATION

DRWN: S.F.H.	CHK'D: M.A.S.
SCALE: AS SHOWN	DATE: 03/10/97

Table 1
Summary of Monitoring Activities
Former Transcon Lines Terminal
Brooklyn, New York

Date	Well ID	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)
6/7/96	MW-1	ND	6.37	0
	MW-2	ND	6.50	0
	MW-3	6.73	6.82	0.09
	MW-4	ND	6.08	0
5/29/96	MW-1	ND	6.19	0
	MW-2	6.38	6.39	0.01
	MW-3	6.48	6.59	0.11
	MW-4	ND	6.19	0
5/22/96	MW-1	ND	6.25	0
	MW-2	6.45	6.46	0.01
	MW-3	6.55	6.61	0.06
	MW-4	ND	6.16	0
5/14/96	MW-1	ND	6.73	0
	MW-2	ND	6.70	0
	MW-3	6.60	6.73	0.13
	MW-4	ND	6.52	0
3/1/96	MW-1	ND	6.48	0
	MW-2	6.29	6.30	0.01
	MW-3	6.02	6.13	0.11

Table 1
Summary of Monitoring Activities
Former Transcon Lines Terminal
Brooklyn, New York

Date	Well ID	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)
3/1/96 (con't)	MW-4	ND	6.26	0
5/2/95	MW-1	ND	6.61	0
	MW-2	ND	6.33	0
	MW-3	6.39	6.40	0.01
	MW-4	ND	6.70	0
3/15/95	MW-1	ND	7.09	0
	MW-2	ND	6.86	0
	MW-3	6.96	6.97	0.01
	MW-4	ND	6.86	0
8/5/94	MW-2	ND	6.47	0
	MW-3	6.49	6.50	0.01
7/8/94	MW-2	ND	6.11	0
	MW-3	6.48	6.52	0.04
6/24/94	MW-2	6.28	6.29	0.01
	MW-3	ND	6.32	0
6/10/94	MW-2	6.74	6.75	0.01
	MW-3	6.79	6.92	0.13
6/3/94	MW-2	6.87	6.89	0.02
	MW-3	6.80	7.04	0.24
5/20/94	MW-2	ND	6.01	0
	MW-3	ND	6.10	0
5/13/94	MW-2	6.74	6.76	0.02
	MW-3	6.73	6.82	0.09

Table 1
Summary of Monitoring Activities
Former Transcon Lines Terminal
Brooklyn, New York

Date	Well ID	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)
5/6/94	MW-2	6.23	6.27	0.04
	MW-3	6.10	6.18	0.08
4/28/94 (*)	MW-2	NM	NM	NA
	MW-3	NM	NM	NA
4/15/94	MW-2	6.61	6.63	0.02
	MW-3	6.55	6.65	0.10
4/8/94	MW-2	6.70	6.75	0.05
	MW-3	6.55	6.65	0.10
3/31/94	MW-2	6.14	6.19	0.05
	MW-3	6.20	6.28	0.08
3/18/94	MW-2	6.60	6.63	0.03
	MW-3	6.55	6.81	0.26
12/23/93	MW-1	ND	7.65	0
	MW-2	ND	7.14	0
	MW-3	7.07	7.26	0.19
	MW-4	ND	7.04	0
12/17/93	MW-1	NM	NM	NA
	MW-2	ND	5.13	0
	MW-3	4.67	4.77	0.10
	MW-4	NM	NM	NA
11/18/93	MW-1	NM	NM	NA
	MW-2	ND	6.35	0
	MW-3	6.47	6.55	0.08

Table 1
Summary of Monitoring Activities
Former Transcon Lines Terminal
Brooklyn, New York

Date	Well ID	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)
11/18/93 (con't)	MW-4	NM	NM	NA
11/12/93	MW-1	NM	NM	NA
	MW-2	ND	6.28	0
	MW-3	6.95	7.09	0.14
	MW-4	NM	NM	NA
11/5/93	MW-1	NM	NM	NA
	MW-2	ND	6.83	0
	MW-3	6.99	7.15	0.16
	MW-4	NM	NM	NA
10/29/93	MW-1	NM	NM	NA
	MW-2	ND	6.36	0
	MW-3	6.38	6.40	0.02
	MW-4	NM	NM	NA
10/22/93 (*)	MW-1	NM	NM	NA
	MW-2	NM	NM	NA
	MW-3	NM	NM	NA
	MW-4	NM	NM	NA
10/15/93	MW-1	NM	NM	NA
	MW-2	ND	5.62	0
	MW-3	5.71	5.78	0.07
	MW-4	NM	NM	NA
10/8/93	MW-1	NM	NM	NA
	MW-2	6.95	7.04	0.09

Table 1
Summary of Monitoring Activities
Former Transcon Lines Terminal
Brooklyn, New York

Date	Well ID	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)
10/8/93 (con't)	MW-3	7.21	7.55	0.34
	MW-4	NM	NM	NA
9/24/93 (*)	MW-1	NM	NM	NA
	MW-2	NM	NM	NA
	MW-3	NM	NM	NA
	MW-4	NM	NM	NA
9/10/93	MW-1	ND	6.58	0
	MW-2	6.12	6.18	0.06
	MW-3	6.37	6.61	0.24
	MW-4	ND	6.45	0
9/3/93	MW-1	ND	6.41	0
	MW-2	6.10	6.20	0.10
	MW-3	6.65	6.89	0.24
	MW-4	ND	6.35	0
8/27/93	MW-1	ND	6.67	0
	MW-2	6.17	6.23	0.06
	MW-3	6.35	6.67	0.32
	MW-4	ND	6.33	0
8/13/93	MW-1	ND	6.54	0
	MW-2	6.22	6.27	0.05
	MW-3	6.39	6.60	0.21
	MW-4	ND	6.40	0
7/28/93	MW-1	ND	6.63	0

Table 1
Summary of Monitoring Activities
Former Transcon Lines Terminal
Brooklyn, New York

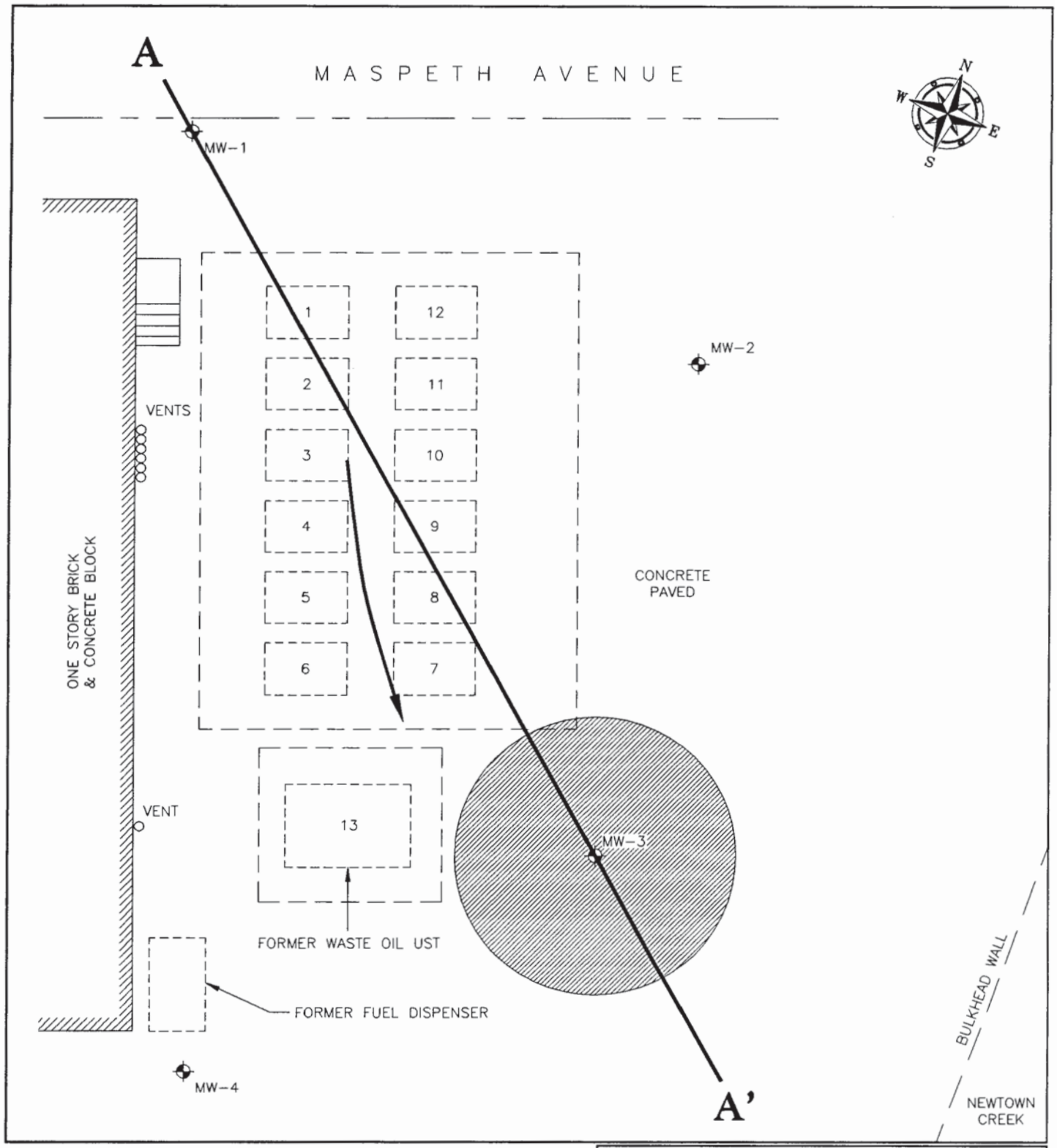
Date	Well ID	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)
7/28/93 (con't)	MW-2	6.26	6.28	0.02
	MW-3	6.69	6.89	0.20
	MW-4	ND	6.35	0
7/23/93	MW-1	ND	6.20	0
	MW-2	6.20	6.21	0.01
	MW-3	6.81	7.04	0.23
	MW-4	ND	6.21	0
7/16/93	MW-1	ND	6.00	0
	MW-2	6.19	6.26	0.07
	MW-3	6.39	6.57	0.18
	MW-4	ND	6.01	0
7/9/93	MW-1	ND	6.20	0
	MW-2	6.00	6.06	0.06
	MW-3	6.71	7.01	0.30
	MW-4	ND	5.93	0
7/2/93	MW-1	ND	5.95	0
	MW-2	5.96	6.05	0.09
	MW-3	6.26	6.55	0.29
	MW-4	ND	6.08	0
6/25/93	MW-1	ND	6.27	0
	MW-2	6.15	6.29	0.14
	MW-3	7.14	7.48	0.34
	MW-4	ND	6.25	0

Table 1
Summary of Monitoring Activities
Former Transcon Lines Terminal
Brooklyn, New York

Date	Well ID	Depth to Product (feet)	Depth to Water (feet)	Product Thickness (feet)
5/28/93	MW-1	ND	6.10	0
	MW-2	6.29	6.44	0.15
	MW-3	7.03	7.27	0.24
	MW-4	ND	6.19	0
5/21/93	MW-1	ND	6.02	0
	MW-2	6.08	6.39	0.31
	MW-3	6.11	6.88	0.77
	MW-4	ND	5.09	0
2/12/93	MW-1	ND	6.10	0
	MW-2	ND	6.07	0
	MW-3	6.53	6.68	0.15
	MW-4	ND	6.41	0
1/29/93	MW-1	ND	6.45	0
	MW-2	ND	6.64	0
	MW-3	7.56	7.84	0.28
	MW-4	ND	6.65	0
12/30/92 (*)	MW-1	ND	7.40	0
	MW-2	ND	7.08	0
	MW-3	ND	8.22	0

NA - Not Applicable
NM - Not Measured
ND - Not Detected
(*) - Due to an equipment malfunction, product thickness could not be measured.

Attachment 4



LEGEND

- MONITORING WELL LOCATION
- APPROXIMATE FORMER EXCAVATION LIMITS
- INFERRED AREA IMPACTED BY FREE PRODUCT (314 SQ. FT.)
- GROUNDWATER FLOW DIRECTION (SOUTHEAST)
- FORMER UST
- A—A' GEOLOGIC CROSS-SECTION LOCATION LINE

SCALE

10 5 0 10 FEET

FIGURE 6

CROSS-SECTION/IMPACTED AREA LOCATION MAP

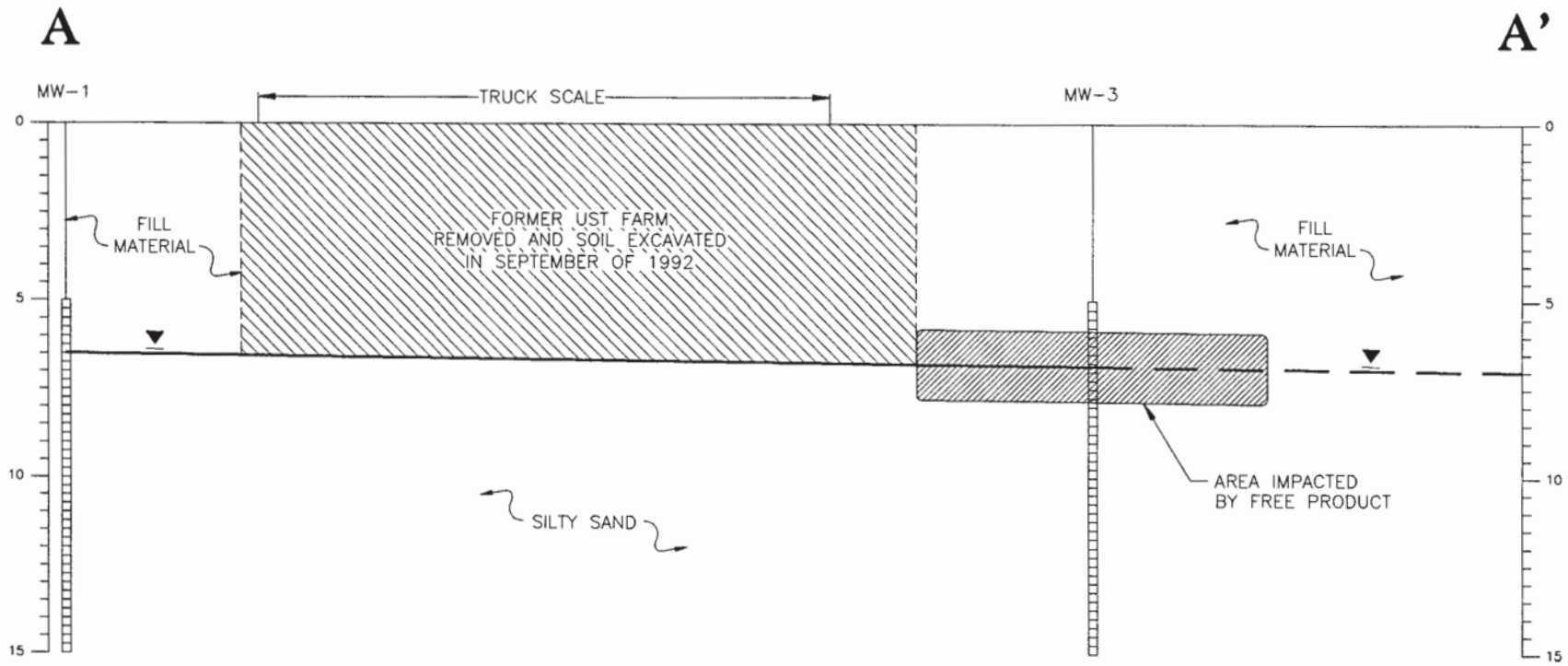
FORMER TRANSCON LINES TERMINAL
BROOKLYN, NEW YORK

McLaren Hart® ENVIRONMENTAL ENGINEERING CORPORATION

DRWN: S.F.H.	CHK'D: M.A.S.
SCALE: AS SHOWN	DATE: 07/29/96

DWG: 85000001 07/29/96

Attachment 5



LEGEND

— — INFERRED GROUNDWATER TABLE

NOTE

GROUNDWATER ELEVATIONS ARE AS OF 6/7/96.

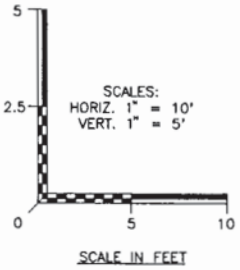


FIGURE 7

GEOLOGIC CROSS-SECTION A-A'

FORMER TRANSCON LINES TERMINAL
BROOKLYN, NEW YORK

McLaren® Hart ENVIRONMENTAL ENGINEERING CORPORATION

DRWN: S.F.H.	CHK'D: M.A.S.
SCALE: AS SHOWN	DATE: 07/29/96

DWG: 85000002 07/29/96

Attachment 6

Table 1
Summary of Monitoring Activities
Former Transcon Lines Terminal
Brooklyn, New York

Date	Well ID	Depth to Product (feet)	Depth to Water (feet)	
2/22/97 11:55 am	MW-1	ND	6.54	
	MW-2	ND	6.35	
	MW-3	6.26	6.56	3 1/2"
	MW-4	ND	6.39	
	Surface Water	ND	7.05	
2/22/97 10:35 am	MW-1	ND	6.59	
	MW-2	ND	6.45	
	MW-3	6.34	6.62	3.4"
	MW-4	ND	6.41	
	Surface Water	ND	5.71	
2/22/97 8:15 am	MW-1	ND	6.58	
	MW-2	ND	6.63	
	MW-3	6.51	6.85	4"
	MW-4	ND	6.41	
	Surface Water	ND	5.15	
2/21/97	MW-1	ND	6.95	
	MW-2	ND	6.87	
	MW-3	6.92 ?	6.62	3 1/2"
	MW-4	ND	6.64	
2/21/97	Surface Water	ND	4.60	

ND - Not Detected

H:\GEO\TRANSCON\MS077.TBL

McLaren Hart®
ENVIRONMENTAL ENGINEERING CORPORATION

recycled paper

Figure 4
Product Thickness Versus Time for MW-3
Former Transcon Lines Terminal
Brooklyn, New York